

Carl R. Darnall Army Medical Center PHYSICAL THERAPY Fort Hood, Texas



SELECTING THE RIGHT RUNNING SHOE FOR HIGH ARCHED INDIVIDUALS

While the most likely cause of running injuries is improper training or excessive mileage, wearing either inappropriate or "worn out" shoes may also increase your risk for injury. A runner should have a basic knowledge of shoe type and his or her individual foot type to assist in running shoe selection. Because each of us has a unique pair of feet, there is not a perfect running shoe for everyone. Please follow these simple tips to ensure that you select the proper shoe type for your individual feet!

KNOW YOUR FEET: We have determined that you either have a high arched foot or that you excessively supinate. When your foot is in contact with the ground, it tends to not roll inwards (pronate) sufficiently for adequate shock absorption. Your worn shoes probably tilt outward when viewed from the rear because the outer (lateral) midsole is excessively compressed (Picture A). If you look at the soles of your shoes, they probably wear out along the outer (lateral) portion (Picture B). A runner with high arches is at greater risk for stress fractures in the leg and pain along the outer or lateral portion of the thigh and leg.

A: Outward Tilt



B: Wear Pattern



FIND A SHOE THAT MATCHES YOUR FOOT TYPE: Buy a cushioned shoe. Cushioned shoes have a curved, slip last and either a single density midsole or a dual density midsole with the firmer portion along the outer/lateral midsole. Cushioned shoes are designed to maximize the amount of motion or pronation available for shock absorption.







AVOID motion control or stability shoes. These shoes could excessively control your foot motion (its ability to pronate).

TIPS FOR TRYING ON SHOES:

- Try on shoes at the end of the day your feet swell as the day progresses.
- Try on shoes with the socks that you normally wear while exercising.
- Try on shoes with your arch supports or orthoses if you typically wear arch supports or orthoses when exercising.
- Try on both shoes: many of us have one foot which is longer than the other.
- Check shoe length while standing- the distance from your longest toe to the end of the shoe should be not less than one half the width, nor more than the entire width of your thumbnail.
- Check the width while standing- The shoe is too narrow if the upper (nylon portion) of the shoe is bulging over the sides of the midsole. The shoe is too wide if there is more than half a finger's width between the side of your foot (at the ball of your feet) and the side of the shoe.
- Raise up on your toes your heel should not rise or slide out of the shoe. In addition, raising up on your toes should not irritate or rub either heel.
- Remember each shoe style is slightly different. Your size may change with both the manufacturer and individual style of a running shoe. Always try on the next ½ size larger or smaller if you are questioning if the size is right.
- The shoes should immediately feel comfortable. There is no such thing as "breaking in a running shoe."

<u>ALWAYS</u>: Replace your running shoes every 400-600 miles. A running shoe loses its shock absorbency as it ages. After the first 100 miles, approximately 10% of the midsole's shock absorption capability is lost. Between 30-50% of shock absorption capability is lost after approximately 250 miles. Approximately 80% is lost after 400-500 miles.

If you need more help selecting a running shoe, seek out a knowledgeable sales person and ask for advice. Bring an old pair of running shoes for him or her to evaluate. A good source on the internet is: www.runnerworld.com/shoes/.

SOURCES: Consumer Reports; www.roadrunnersports.com; Runner's World; FM 21-20; and handouts/presentations from the physical therapy clinics at Ft. Hood, Ft. Jackson, Heidelberg, and Ft. Meade

Cushioned Running Shoes (Available Spring 2005) for those with a High Arch *Heavy runners (Males>180 lbs; Females > 150 lbs)

				bs; Females > 150 lbs) Width			
Model	List \$	Available in AAFES	AAFES \$	One Width	Medium & Wide	Multiple Widths	
Adidas Response		$\sqrt{}$	\$60.00				
Adidas A3 Mega Ride	\$89.99						* Recommended for Heavy runners.
Adidas Supernova Cushion	\$76.49						
Adidas Adios Lightstrike	\$71.99						
Asics Gel Cumulus II		$\sqrt{}$	\$64.00				
Asics Legato		$\sqrt{}$	\$40.00				
Asics GT 2100			\$72.00				
Asics Foundation Plus			\$72.00				
Brooks Epiphany 2	\$116.99			√			* Recommended for Heavy runners.
Brooks Glycerin 3	\$89.99			V			
Brooks Radius '05	\$71.99			V			
Etonic Reflection ER 5759		V	\$36.00				
Etonic Mirage ER 5081		V	\$40.00				
Fila Flow Providence	\$100			V			
Mizuno Wave Creation 6	\$107.99			V			
Mizuno Wave Rider 8	\$80.99				V		
Mizuno Wave Precision 5	\$76.49			V			
New Balance 641		V	\$56.00				
New Balance 754 or 833	\$76.49					V	
Nike Shox TL2	\$134.99			V			* Recommended for heavy runners
Nike Air Pegasus	\$71.99					V	
Nike Air Max Moto 3	\$76.49					V	
Nike Air Shox 2:45	\$76.49					V	
Nike Air Shox Oz	\$89.99			V			
Nike Air Skylon 3	\$71.99			V			
Nike Free 5.0	\$76.49			V			Proposed to simulate running barefoot
Nike Shox Dendara	\$100			$\sqrt{}$			Designed for women
Reebok Premier Ultra DMX II	\$98.99			$\sqrt{}$			
Ryka N-Gage Run	\$85.00			V			Designed for women
Saucony GRID Triumph 2	\$98.99			V			* Recommended for heavy runners
Saucony GRID Jazz X	\$62.99					V	
Saucony GRID Trigon 3	\$80.99					√	Designed for women
Saucony GRID Triumph 2	\$98.99			√			* Recommended for heavy runners